

The Drawdown Test in TWDB's paper No. 173 indicates a value of $k=4700$ md

In the aquifer, the Pressure at a distance r from the well is given by:

$$p = p_e + \frac{q\mu B_o}{14.16 kh} Ei\left[\frac{-r^2}{4\eta t}\right]$$

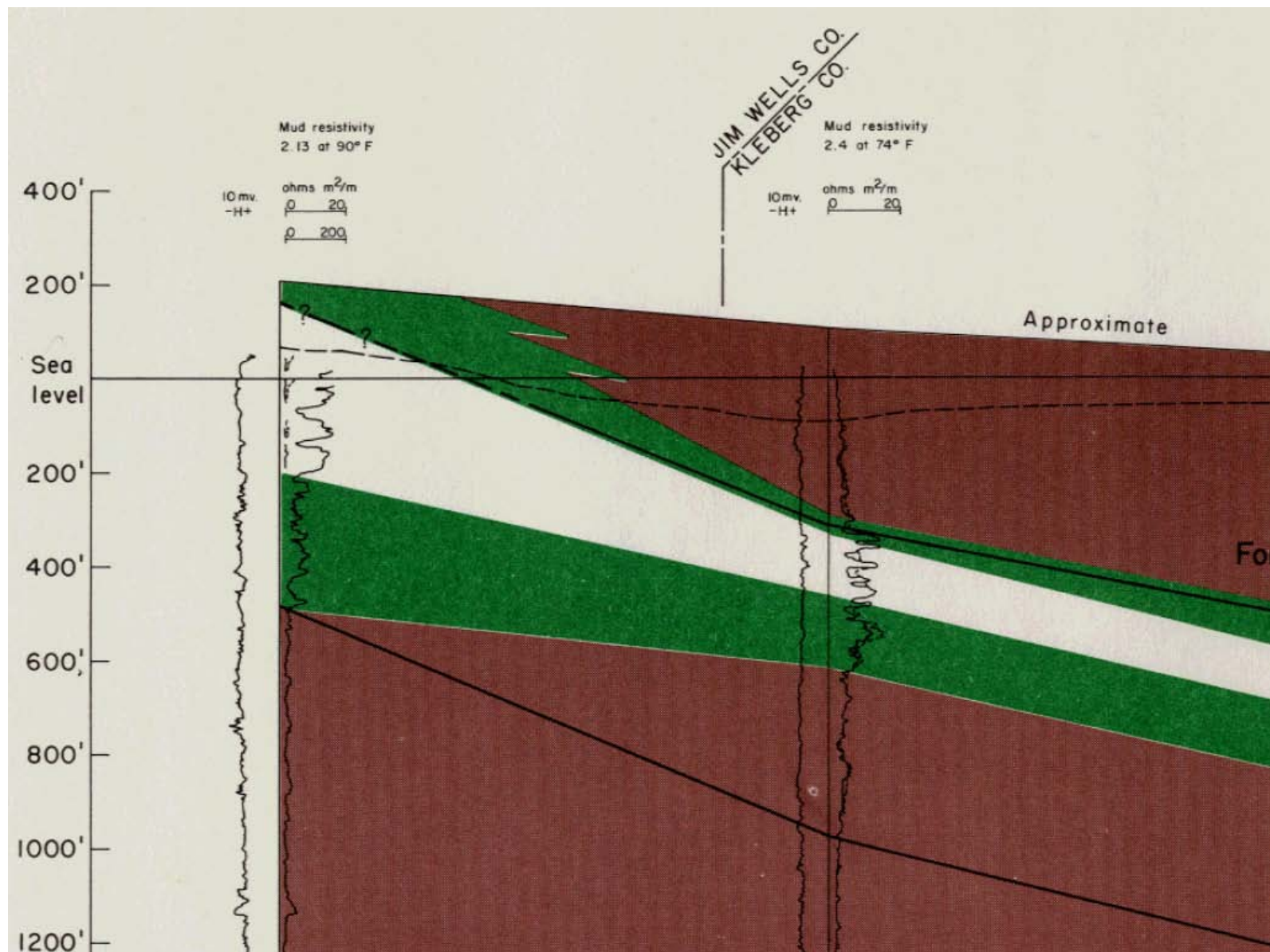
The parameters within the square brackets give the value of x in the series below

The Diffusivity Coefficient was computed using:

$$\eta = \frac{6.32 \ k}{\mu C_o \phi_{HC}} =$$

$$Ei(-x) = \ln x + 0.5772 - x + \frac{x^2}{2 \times 2!} - \frac{x^3}{3 \times 3!} + \frac{x^4}{4 \times 4!} - \dots - \frac{x^n}{n \times n!}$$

The Exponential Integral Ei was computed with the above series expanded to x^5



The permeable interval in the Goliad sand was estimated as 230 feet thick

Goliad Aquifer Supply Rate for Kingsville

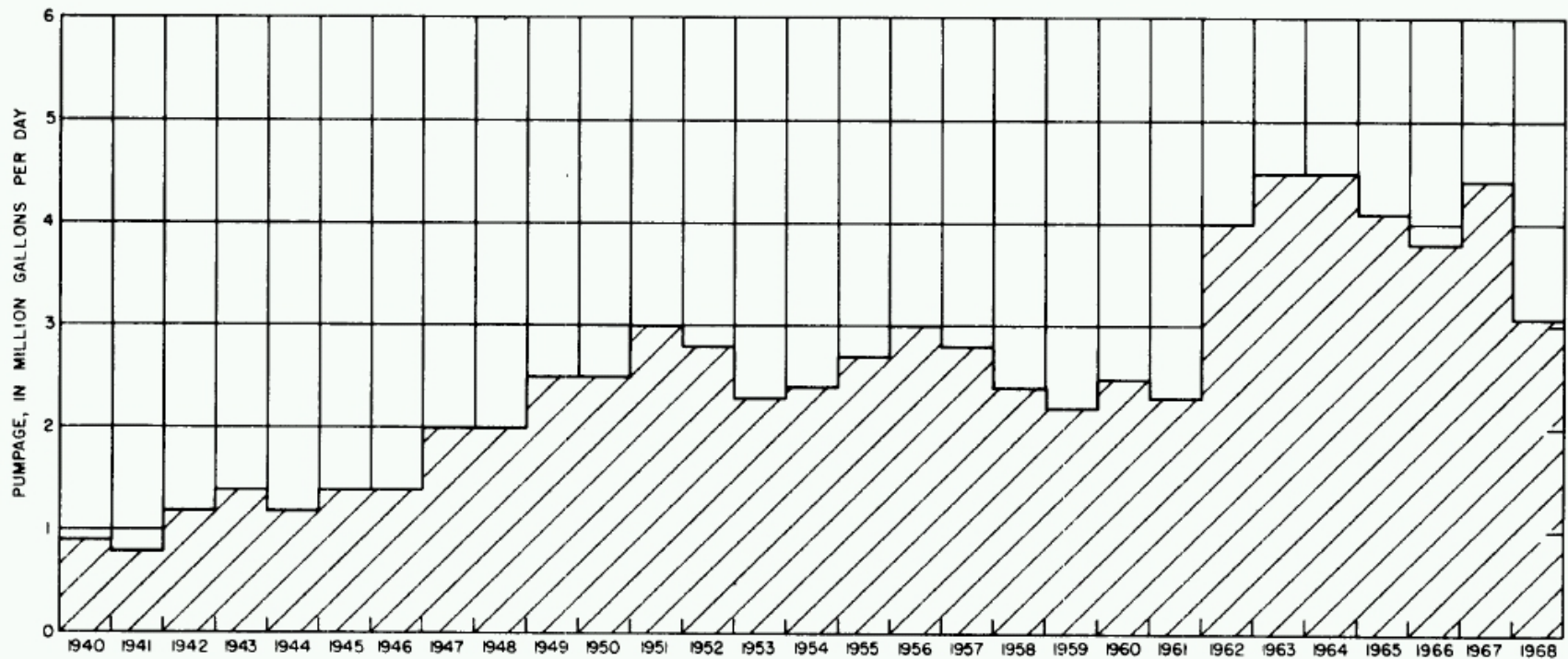


Figure 7.—Average Daily Pumpage of Ground Water for Public Supply by the City of Kingsville, 1940-68

Average Water Production Rate of Roughly 3 MMGals/Day Over 30 Years

